

Anti-cGAS Mouse mAb

Purified Recombinant Mouse Monoclonal Antibody

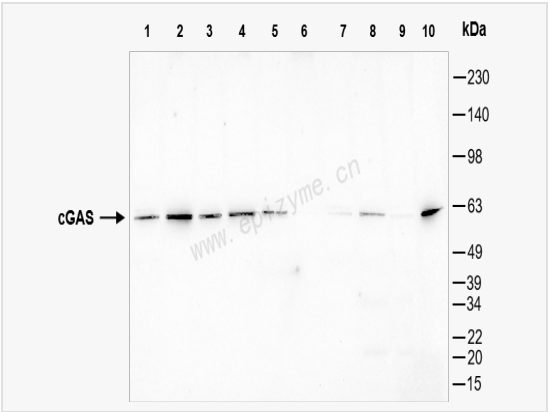
Catalog # M014920

Product Information

Application	WB, IF (Cell)/ICC, ELISA
Reactivity	Human, Mouse (Cell), Rat
Dilution	WB 1:1,000~1:2,000; IF 1:100~1:200
Host	Mouse
Clonality	Monoclonal
Clone No.	59H67Q23
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human cGAS
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-cGAS Mouse mAb [59H67Q23] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	C6orf150, cGAMP synthase, cGAS, CGAS_HUMAN, cGMP Synthase, Chromosome 6 open reading frame 150, Cyclic GMP-AMP synthase, h-cGAS, Hypothetical protein LOC115004, Mab 21 domain containing 1, Mab-21 domain-containing protein 1, MB21D1, MGC131892, MGC142166, MGC142168, OTTHUMP00000016743, OTTHUMP00000039330, protein MB21D1, Uncharacterized protein C6orf150.
Calculated MW	Calculated MW: 58 kDa; Observed MW: 62 kDa
Uniprot ID	Q8N884
Gene ID	115004
Background	Nucleotidyltransferase that catalyzes the formation of cyclic GMP-AMP (cGAMP) from ATP and GTP. Catalysis involves both the formation of a 2',5' phosphodiester linkage at the GpA step and the formation of a 3',5' phosphodiester linkage at the ApG step, producing c[G(2',5')pA(3',5')p]. Has antiviral activity by acting as a key cytosolic DNA sensor, the presence of double-stranded DNA (dsDNA) in the cytoplasm being a danger signal that triggers the immune responses. Binds cytosolic DNA directly, leading to activation and synthesis of cGAMP, a second messenger that binds to and activates TMEM173/STING, thereby triggering type-I interferon production.
Cellular Location	Cytoplasm > cytosol.
Tissue Location	Expressed in the monocytic cell line THP1.



Western Blot - Anti-cGAS Mouse mAb [59H67Q23]

All lanes: M014920 at 1:1,000 dilution

Lane 1: A549 (Human lung carcinoma epithelial cell) whole cell lysates

Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates

Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates

Lane 4: A431 (Human epidermoid teratoma cell line) whole cell lysates

Lane 5: Caco2 (Human colorectal adenocarcinoma epithelial cell) whole cell lysates

Lane 6: Jurkat (Human T lymphocytic leukemia cell) whole cell lysates

Lane 7: 293T (Human embryonic kidney cell) whole cell lysates

Lane 8: SCC-9 (Human tongue squamous carcinoma epithelial cell) whole cell lysates

Lane 9: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates

Lane 10: Rat liver whole tissue lysates

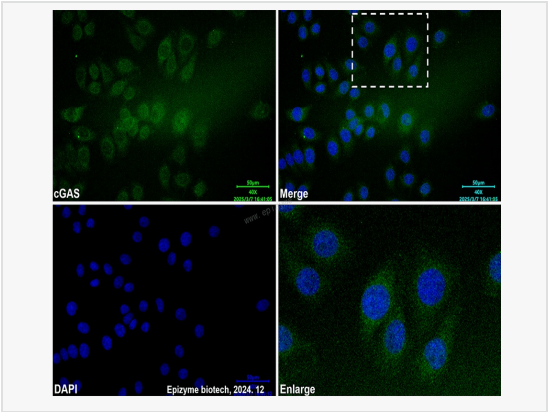
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP Conjugated (Cat. No. LF101) at 1:5,000 dilution

Predicted band size: 58 kDa

Observed band size: 62 kDa

Developed using the ECL technique (Cat. No. SQ201).



Immunofluorescence - Anti-cGAS Mouse mAb [59H67Q23]

Sample: HeLa cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibody: M014920 at 1:100 dilution

Secondary antibody: Goat anti-Mouse (488) at 1:1,000 dilution (shown in green)

Nuclei were stained with DAPI (shown in blue).